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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,350	03/27/2001	Masami Kanasugi	FUJX 18.514	1201

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EXAMINER

DO, CHAT C

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 03/09/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,350

Applicant(s)

KANASUGI ET AL.

Examiner

Chat C. Do

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1.6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This communication is responsive to Amendment A, filed 1/26/2004.
2. Claims 1-10 are pending in this application. Claims 1, 5, and 9-10 are independent claims. In Amendment A, claims 1, 5, and 9-10 are amended. This action is made final.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, the limitation "the rest" in line 15 lacks an antecedence basis. For examination purposes, the examiner considers this limitation as "a rest". Claims 9-10 have the same problem.

Re claim 5, it has the same problem as cited above. In addition, the limitation "the patterns" in line 14 lacks an antecedence basis. For examination purposes, the examiner considers this limitation as "patterns".

Thus, claims 2-4 and 6-8 are also rejected for being dependent on the rejected base claims 1 and 5 respectively.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5-7, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by D'Luna et al. (U.S. 5,311,459).

Re claim 1, D'Luna et al. disclose in Figure 2 an over-sampling FIR filter for filtering with a clock having a frequency higher than a frequency of accepting input data, comprising: a shift register (12) having a plurality of holding parts (I1-I4) connected in cascade for sequentially accepting input data (CI_IN); a plurality of selectors (M1-M3) respectively formed corresponding to holding parts for selecting, a predetermined number of tap factors (12 coefficients) from a plurality of tap factors, in which the selecting is done sequentially in each selector in synchronization with clock (1/3 clock); a plurality of multipliers (3 multipliers in Figure 2) formed respectively corresponding to holding parts for respectively multiplying input data held in holding parts, by tap factors selected by selectors corresponding to holding parts; and an adder (A1) for adding the multiplication result (B2-B4) from multipliers and outputting the resultants as output data (OBI), and wherein one or more of selectors change predetermined number of tap factors to be selected and the rest of selectors change patterns of the selected tap factors (14 by the control circuits 15), in accordance with a change in the number of over-samples, which is the number of tap factors to be multiplied by single input data (routing in sequence).

Re claim 2, D'Luna et al. further disclose in Figure 2 a part of plurality of tap factors respectively selectable by selectors adjacent to one another are shared by selectors (14 is the routing coefficient circuit wherein the coefficients are propagated to all the coefficient registers C1-C12).

Re claim 3, D'Luna et al. further disclose in Figure 2 a tap controlling unit for instructing selectors tap factor to be selected first in accordance with a change in number of over-samples (15).

Re claim 5, it is a method claim of claim 1. Thus, claim 5 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 6, it is a method claim of claim 2. Thus, claim 6 is also rejected under the same rationale in the rejection of rejected claim 2.

Re claim 7, it is a method claim of claim 3. Thus, claim 7 is also rejected under the same rationale in the rejection of rejected claim 3.

Re claim 9, it is an integrated circuit claim of claim 1. Thus, claim 9 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 10, it is a system claim of claim 1. Thus, claim 10 is also rejected under the same rationale in the rejection of rejected claim 1.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over D'Luna et al. (U.S. 5,311,459).

Re claim 4, D'Luna et al. do not disclose in Figure 2 that when number of over-samples is changed, tap controlling unit changes tap factors selected by selectors back to predetermined tap factors used prior to the changing of number of over-samples, in which every time input data is accepted, the changes of tap factors are performed in sequence, starting from selector corresponding to holding part at the input side. However, the examiner take an official notice that it is well known in the art that each time the sampling rate or data rate is changed, the coefficients are reset in order to obtain the correct output. Therefore, it would have been obvious to a person having ordinary skill in the art the time the invention is made to add a reset mode of resetting the coefficients when the sampling rate is changed into D'Luna et al.'s invention because it would enable to increasing the system performance and simplify the system circuitry of obtaining the filter output of a dynamic sampling rate.

Re claim 8, it is a method claim of claim 4. Thus, claim 8 is also rejected under the same rationale in the rejection of rejected claim 4.

Response to Arguments

9. Applicant's arguments filed 1/26/04 have been fully considered but they are not persuasive.

a. The applicant argues in page 7 second paragraph that D'Luna does not disclose a group of selectors including one or more selectors that change(s) the predetermined number of tap factors to be selected, and the rest of the selectors in the group changing patterns of the selected tap factors.

The examiner respectfully submits that D'Luna clearly disclose in Figure 2 a circuit configured to perform sequentially matrix operations including group of selectors (e.g. M1, M2, and M3) including one or more selectors (e.g. M1) that change(s) the predetermined number of tap factors to be selected (the selection is controlled by the control circuit 5), and the rest of the selectors (e.g. M2 and M3) in the group changing patterns of the selected tap factors because the mux control circuit is connected to all the selectors/mux.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., maintaining the continuity of the filter output in a third paragraph page 7) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
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KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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March 3, 2004